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THE INDUSTRIAL SERVICES OF THE RAILWAYS.

Railways are essential to almost every form of industry. Our present industrial organization is based upon the possibility of moving large quantities of freight long distances at cheap rates. The freight thus carried is not only that which is light and of great worth, but also that which is bulky and of low value. The character of our industry is at every point conditioned by the fact that we are able to supply our manufactories with crude materials obtained hundreds and thousands of miles distant. Improvements in transportation have enabled us to sell our finished goods wherever they may be in demand; we are to-day producing for a world market. We accept these things so much as a matter of course that we have no little difficulty in picturing to ourselves what was the character and what were the methods that obtained in business before the railroad made its appearance. The industrial revolution has been a complete one, yet the railroad is barely two generations old, and, indeed, it is scarcely more than one generation, that is, since 1850, that the railroad has become of sufficient extent, and the traffic upon it has attained sufficient magnitude to give to this agent of transportation the power fundamentally to transform the industrial life of the world.

Andrew Jackson was elected President of the United States in 1828, an important year in the history of American railways. It was then that the construction of the Baltimore and Ohio was begun and the Delaware and Hudson company's gravity line connecting Carbondale with Honesdale, Pennsylvania, was completed. Jackson's administration was in many ways significant in the history of the United States. Great changes were wrought in the political institutions of our country during the eight years of what Professor von Holst has happily characterized as "the reign of Andrew

Jackson." Industrial affairs underwent a far greater transformation. Jackson's administration was the period of America's industrial revolution. It was a revolution in many ways analogous to that which took place in England fifty years earlier; its immediate changes were quite as important, and its ultimate effects quite as far reaching. In politics the change was one which brought the administration and management of the government into the hands of the representatives of the common people. The conservative, aristocratic classes gave place to the democratic masses in the control of the affairs of state. Jackson's political creed was *vox populi, vox dei*. In industrial matters, the fourth decade of this century witnessed a revolution of still greater significance. The movement of the population into the Western States was rapid and speculation in public lands became rife. The several States began to engage largely in works of internal improvement. All of these things were greatly stimulated by Jackson's war on the Bank of the United States, resulting in the withdrawal of the deposits of the United States government from that safe institution and their transference to the unsound speculative State banks of the West and South. Spurred on by the speculation in Western lands, allured by the prospect of obtaining the deposits of the United States government and of securing the surplus revenues which the United States began to distribute at the beginning of 1837, the banking institutions in the States multiplied swiftly and dangerously inflated the currency of the country. This speculation and inflation of the currency inevitably led to the panic of 1837; but the seven years which preceded the crash were characterized by intense business activity.

Nothing shows this fact better than the list of inventions made during and shortly after that time. In 1836, the use of anthracite coal in steam engines was shown to be practicable; the screw propeller was invented shortly afterward, and by 1838, the navigation of the ocean by steamships had

become an accomplished feat. Another use to which anthracite coal was first put in 1836 proved of still greater influence upon our economic development. I refer to its use in the smelting of iron. From the introduction of anthracite coal into the blast furnaces is to be dated the important development of the iron industry of this country. England began to substitute bituminous coal and coke for charcoal in the manufacture of iron at the middle of the last century; we in this country, however, were not able to avail ourselves of this cheaper and better fuel because our iron furnaces were separated from our bituminous coal beds by the Alleghany Mountains, which imposed a physical barrier greater than could then be overcome by the means of transportation employed in the carriage of coal. We did not begin to manufacture pig iron on a large scale until we began to use coal mined in close proximity to the iron furnaces. This, of course, was anthracite coal. Among the other important inventions made during the fourth decade were the reaping machine brought out by McCormick in 1834, and the steam hammer given to the world by Nasmyth in 1838.

The mere mention of these inventions of manufacturing and agricultural machinery is sufficient to show with what feverish activity the pulses of business must have throbbed during this decade of industrial revolution. Naturally enough the business world over-reached itself and the crisis of 1837 resulted. How the financial blunders of Jackson and Congress precipitated this panic and added to its intensity are well-known matters of history. Great as was the crisis, however, it was able to produce only a temporary halt in the rapid reorganization going on in the business world. Industry and trade had again reached a sound basis at the beginning of the fifth decade and the leading features of our present industrial organization began to be manifest.

Accompanying and stimulating these industrial changes of the fourth decade was the revolution which then took place in the means of transportation. The introduction of

the railroad marks the fourth phase in the evolution of the transportation system of this country. Forty years previous turnpike companies had begun the improvement of our country roads. Twenty years before the advent of the railroad the steamboat began to ply the waters of the Western rivers and aid the settlement of new lands. During the same period the construction of canals and the improvement of rivers had been doing something to make agricultural products, raw materials, and manufactures marketable at more distant points. Then, in 1830, the railroad took its place in the system of transportation, and soon demonstrated itself an efficient agent for the promotion of industrial advancement. By the end of the succeeding decade it had shown itself indispensable to industry. The introduction of the railroad was a part of the revolution just referred to. It entirely changed the means and methods of transportation; but the appearance of the railroad was not only a part of this transformation in industrial affairs, it was also a cause, and doubtless the greatest cause, of this economic revolution which had its beginning in the fourth decade.

In order to set forth more distinctly the influence which the railroads have exerted upon industrial advancement, let us inquire how the organization of industry, which prevailed during the first third of this century, differed from that of the present. In the first place labor was then mostly performed by hand, machines were but little used. Alexander Hamilton, in his famous "Report on Manufactures," made at the close of 1791, gives a summary of the leading articles manufactured in shops at that time and then adds that, "Besides manufactories of these articles, which are carried on as regular trades, and have attained to a considerable degree of maturity, there is a vast scene of household manufacturing which contributes more largely to the supply of the community than could be imagined without having made it an object of particular inquiry. . . . It is

computed in a number of districts that two-thirds, three-fourths and even four-fifths of all the clothing of the inhabitants is made by themselves." What Hamilton said in regard to the manufacture of clothing in the homes was in the main true of other articles at the time he wrote, and continued to be true till some time later. Most things were still made in the homes or in small shops during the early years of this present century; indeed, the factory system did not spread much in the United States till after the close of the second war with Great Britain, 1812-15; and then, with the exception of the manufacture of cotton and woolen cloths, industry still kept outside of the large factories. Likewise before the election of Jackson and the advent of the railroad, business was chiefly a matter of individual enterprise and was usually conducted under a simple partnership form of organization. Corporations which, large and small, now so completely occupy the field of business, were then but little known. In those days industry was conducted mostly on a small scale, and was carried on by a widely scattered village population, whereas now, the seats of manufacturing industry are large mills, factories and warehouses in the great centres of population.

Had we any means of definitely measuring the transportation business done before 1830, we should have a good index of the industrial activity of that time; but there are no statistics of the volume of freight carried before the railway began to be used. We know, however, that it must have been small. Only those cities situated on the ocean or along some navigable lake or river of importance could then have any trade of more than local extent. The first movement of large quantities of freight long distances within the United States came with the opening of the Erie Canal. Later such inland waterways as the Great Lakes, the Mississippi, Ohio, Hudson and other rivers became routes of a good deal of traffic. When, however, we consider how very local the character of the trade and industry of the United States was

before 1830, and how small a part of the country west of the Alleghany Mountains had been occupied and had begun producing commodities to be marketed on the American seaboard or in the European cities, we must realize that, before the appearance of the railroads, the business of transportation had very small dimensions in this country. The railways made possible a large increase in the volume of business done, and added greatly to the amount of traffic in motion.

The effect of the railroads upon industrial advancement was a more vital one than is indicated by the increase in the amount of goods transported. The railroads made their advent at the eve of an industrial revolution; they made that revolution greater and modified its character by increasing the rapidity and cheapness of travel and freight transportation. The influence which the railroads have exerted in this revolution and the real rôle which they have played in the transformation which has followed can best be shown by first setting forth the essential characteristics of the economic changes which actually took place.

This industrial revolution began in England about 1770, and commenced a generation and a half later in the United States; its characteristics in each country were very similar, and it had three pretty distinct phases. The first change that took place was the substitution of machinery for hand labor. This transformation soon necessitated the transfer of the laborers from their homes or the small shops to factories, or large buildings, in which the labor of many men could be concentrated and supervised. The power first used in running machinery was water power, thus the location of the factories was along the streams. Woolen, cotton, flour, lumber, and other mills were all located by streams of water. They are in part to be found there yet, but the use of steam power has resulted in their being differently placed. After the use of steam became general in manufacturing, the mills and factories were most always to

be found near the beds which supplied the coal to be used in the engines, or near the sources of the raw material from which the manufactures were to be made.

This phase of the industrial revolution brought about the transfer of industry, and, to a large extent, of population, from the south and east of England to the north and west. In the State of Pennsylvania we have seen the iron manufacture located first with reference to the wood to be used in the furnaces, then with regard to the anthracite coal beds, and now with respect to the location of the bituminous coal from which the coke for the blast furnaces is to be made. Bituminous coal and fuel oil have made Pittsburgh the greatest iron city of the United States. To this city the ore even of States as far distant as Michigan, Wisconsin and Minnesota, is brought to be smelted. Sources of fuel supply are thus shown to be a stronger force in determining the location of industry than sources of raw materials used in manufacture. The last, and the recent, phase of the industrial revolution has brought the industries to the cities. Manufacturing plants are now being located in the great centres of population, with reference rather to sources of labor supply and to the condition of marketing and distributing the product than to the origin of fuel and raw materials.

Nothing but improved means of transportation could have made possible the second phase of the industrial revolution. Although in England fuel and the raw materials of manufacture came together in a large degree, it was not always so there, and it was necessary even in that country to transport a good deal of the raw material as well as the finished commodities. Until the railroads came into use this work of transportation was done by the improved rivers and the canals of northern England. Railways and waterways now combine to make possible the development of such a city as Manchester or our Pittsburgh. Without the cheap transportation which the Great Lakes and the railroads

furnish for the coal used and the articles manufactured, the industries of Pittsburgh would be of only minor importance.

It is the railroads that have enabled industry to disregard the location of the supply of the fuel and the raw materials to be used, and to plant itself chiefly with reference to labor supply and the distribution of finished goods. The greatest manufacturing city of the United States is Philadelphia, situated on tide water instead of in close proximity to the coal mines of Pennsylvania. New York and Chicago are rapidly developing in manufacturing. This is because the railways are able to bring the coal and other bulky raw materials to these large cities so cheaply that the manufacturer finds it to his advantage to locate his plant advantageously as regards the shipments of his productions. This favorable situation for distribution is often to be found on the seaboard or on the Great Lakes, or on some large river; but not always so; for an interior town having only railways upon which to depend for transportation, may be such a railway centre and be so favored by the railways as to become of great industrial importance. Such interior cities as Indianapolis and Atlanta are instances of this.

The industrial revolution, then, has had three phases: the substitution of machinery for hand labor and the consequent introduction of the factory and mill system for house industry; second, the localization of industry near sources of raw materials, especially coal; and, third, the location of industry with reference rather to markets and to the distribution of product than to sources of supplies. The railroads promoted the second change, and are almost entirely responsible for the third.

Having considered what part the railroads played in the early stages of that great industrial revolution which has so completely transformed every phase of our economic activity, let us now turn to an analysis of the economic services performed by the railroad at present, with the purpose of

discovering how our widely extended and highly organized system of rail transportation modifies and assists present industrial processes.

As our railroad system has grown in extent its social and economic services have more than proportionately increased. The constant tendency of business has been to adjust itself to the conditions brought about by the presence of the railway in the transportation system. Business, furthermore, has had ample opportunity to make adjustments; the improvements in the railway have been rapid, it has taken up one new service after another in quick succession. The more services the railroads rendered the greater necessity have they become. As was declared in the opening sentence of this paper, they have now become essential to almost every form of industry.

The truth of this statement becomes evident when one analyzes the functions performed by the railways in assisting men and society in their efforts to satisfy their wants. Production consists of the two processes involved in getting commodities ready to sell and in subsequently distributing them among those who wish to consume the manufactured articles. By describing how the location of manufacturing and other productive enterprises has been largely determined by the railroads, I have partially indicated how the first half of the productive process has been influenced by rail transportation. By bringing about this localization of industry, the railroads have done much to cheapen the expense of getting things ready to distribute. It is no exaggeration to say that they have done more than anything else to reduce the expenses connected with that part of production which is concerned with the making of things.

The railroad, however, is especially the agent of distribution; and it is here that the value of its economic services is most apparent. In its economic function of distribution the railroad has in general accomplished two things: First, it has cheapened the expenses of former services. With the

railroad to aid us we are able to perform a particular task of distribution with less outlay of energy and capital. Just how much is saved to industry by the cheaper transportation afforded by the railroads, it is difficult to measure. Computations showing that it would have cost the people of the United States eleven times as much had they employed horses to do the freight work done by the railroads during the year ending June 30, 1893, teach but little, because transportation is a service that consists of more than the mere movement of things. The factors of time and expense are involved. Goods sent by freight are consigned to the carrier to be delivered at a stated place within a certain period of time and at a stipulated rate. These conditions, in our present business organization, could not be met by any system of transportation inferior to the railroad.

Statistics showing the decline in rail rates indicate something regarding the influence which the railroads have exerted upon expenses of production, including distribution. The average freight rate per ton mile received by the railroads of the United States was two and one-half cents in 1869, and in 1893 it was .878 cents. The rate of fourteen years ago was three times that of the present rate.*

The other saving in the expenses of production that results from the use of the railroad as a carrier arises from the fact that this agent can perform many kinds of services of which other means of transportation are incapable. We not only ship more cheaply, but we ship a great deal more because of the existence of the railroad. Many commodities are made mobile by the railroad. Quick transit for perishable goods, cheap rates for bulky raw materials, regularity and frequency of service have combined to increase greatly the variety and volume of the commodities which circulate

*Of course the causes which have made possible this reduction are so well known that they hardly need be mentioned. Chief among them would rank the invention of the Bessemer process of manufacturing steel.

through the channels of trade.* This is the chief reason why industry is stimulated and advanced by every decline in the rates of transportation.

Not only have the railroads brought down the expenses of production and distribution and enabled the prices of goods to decline; they have, also, performed the hardly less important service of making prices more nearly uniform in the various markets of each country and of the world. The railway, aided and supplemented by the steamship and the other agents of transportation, has given society such an efficient mechanism for doing the work of collection and distribution that the task of keeping the relation of supply to demand practically the same in all markets has become a comparatively easy matter. To one familiar with the great differences in the prices commanded by the same article a century or even fifty years ago the significance of this is apparent. We sometimes, even now, hear of famine prices prevailing in remote and inaccessible quarters of the world, but the phenomenon has become of very rare occurrence. Formerly it was an unavoidable feature of the economic life of the segregated social groups. With the economic

*The volume of the railway traffic of the United States has been made a matter of common knowledge by the annual reports of the statistician to the Interstate Commerce Commission. The following figures taken from this report are illustrative. They are for the year ending June 30, 1893:

Tons of freight moved	745,119,482
Average number of miles each ton was hauled	125.60
Total ton mileage	93,588,111,833
Number of passengers carried	593,560,612
Average length of each journey in miles	23.97
Number of locomotives used	34,783
Number of cars operated	1,273,945
Total capitalization, stocks and bonds	\$10,506,235,410
Gross earnings	\$ 1,220,751,874
Total number of employees	873,602

The difficulty of comprehending the meaning of such large figures as some of the above are is well known. The article by Edward Atkinson on "The Railway, the Farmer, and the Public," contained in his volume entitled "The Distribution of Products," has several graphic illustrations of the growth and magnitude of our traffic by rail. Certain paragraphs in the second chapter of "Recent Economic Changes," by David A. Wells, may be consulted to advantage.

solidarity now attained the world stands ready to supply any deficiency which a crop failure may cause in any locality or in any country. Each industrial centre has the world for its storehouse and its market.

The railroads have exercised a third influence upon prices by helping to make them more stable from year to year or from one productive period to another. The food of the world is now garnered into great warehouses from which the different parts of the world draw their needed supply in varying amounts and at such times as best suits their convenience. The stock of food on hand is always large. The distribution of this supply is so made as to result, month by month and year by year, in fairly staple prices. The prices of wheat and other cereals in the great markets of the world now oscillate between comparatively narrow limits.* The railroads have lowered prices, made them more uniform, and given them greater stability.

The foregoing analysis partially shows the position held by the railroads in industrial organization. They possess the keys of trade; they can unlock the doorway to success or exclude a business from every opportunity. Thus far in this paper attention has been directed only to the influence of the railroads for good, to the ways in which they have benefited industry. The picture has another side, however. The great power of the railways has frequently been wielded so as to work injury to the business interests of individuals, of cities, and of sections of the country. As long as carriers charge different shippers and different localities equal rates for like services rendered and show no special and unwarranted favors to particular persons or places, so long is their influence entirely beneficial; but to the extent that they make discriminations and grant special favors to the more powerful shippers, to that degree is their great power wrongly and injuriously exercised. The public weal is best served when all shippers are treated alike.

* See Chisholm's "Commercial Geography," p. 4, for illustrative statistics.

The industrial history of the United States during the last twenty-five years is replete with illustrations of the way in which the railroads have wrongfully used their power to control business. The method by which the Standard Oil Company built up its monopoly is known of all. No excuse, however, need be made for referring to it in this connection. Its history is typical of a host of other organizations, and shows most clearly how unrestrained competition and inadequate supervision of transportation have made it possible for certain shippers to secure such special favors in rates as to enable them to build up monopolies on the ruins of competitors whose claims to life and prosperity were no less valid than those of their conqueror.

I am not arguing against monopolies, nor saying that consolidation of competing businesses is not generally for the welfare of society; I am simply claiming that this consolidation takes place rightly only when it results from the working out of those economic laws that tend to concentrate the management of particular forms of industry into the hands of fewer men because of the greater economy or efficiency that may result. We should have had business consolidation without railway discriminations; but we should have made the substitution of the large corporation and trust for the smaller organizations with fewer individual hardships and with less suffering on the part of unfortunate localities. The change would have come less rapidly and the adjustments would have been made with fewer individual hardships.

When the Standard Oil Company established its refining business in Cleveland in order to secure cheaper rates to the seaboard by the water route than were obtainable by rail from Pittsburgh, it was simply aiding society to obtain the benefits that flow from the use of cheap transportation; but when the company deliberately set out to destroy the refiners of Pittsburgh and to employ for the accomplishment of their purpose the very agency that society had set

up to serve the welfare of Pittsburgh and all other places indiscriminately it committed an unjustifiable act. The Standard Oil Company having attained to considerable proportions made use of the competition of the trunk lines with each other to compel them to grant special rates. "In this case the railroads were used one against another to make private concessions. Each road desired to secure the business of the Standard Oil Company by underbidding the other."* The business of the company grew rapidly and the competition among the trunk lines for its business became more intense, and the tendency to indulge in rate wars grew stronger. Such was the situation which made it possible for the company to act as the "evener" in the oil trade, by contracting to divide up the freight business among the competing lines, according to a stipulated ratio, and to exact for this service a rebate of ten per cent from the charges on all its shipments. Later the Standard Oil Company was able to exact a still greater commission than this, and to compel the railroads to pay a rebate of "at least twenty cents per barrel on each barrel of crude oil" transported. When these facts first became public, some fifteen or sixteen years ago, we realized for the first time how complete is the control over business which can be exercised by the transportation companies. The Standard Oil Company received not less than \$10,000,000 in eighteen months.† The

* Albert Fink. Testimony before Cullom Committee, Part 2 of the report, p. 122.

† The relation of the Standard Oil Company to transportation is quite fully brought out in the Report of the Hepburn Legislative Investigating Committee of the State of New York, 1879 and 1880. An outline of this interesting bit of industrial history is given in Vol. CXXXVI. of the *North American Review* [1883], pp. 191-200. The agreements above referred to were but two of many similar ones. An accession of the ten per cent rebate was made by the Pennsylvania Company October, 1877; the commission of twenty cents per barrel on all crude oil shipments was soon demanded by the Standard Oil Company. Some of the correspondence on this latter requisition is well worth reprinting in this connection. The general manager of the American Transfer Company, an auxiliary of the Standard, on February 15, 1878, wrote as follows to the vice-president of the Pennsylvania Railroad Company:

"I here repeat what I once stated to you, and which I asked you to receive and treat as strictly confidential, that we have been for many months receiving from

discriminations it compelled the railroads to make in its favor gave it the power of crushing its competitors out of business.

The evils of discrimination and the ways in which they have injured industry have often been discussed. In this connection it is not necessary to do more than to emphasize briefly the importance of freeing our transportation system of every vestige of them. The best interests of industry demand nothing less. Moreover, this is a matter concerning which all are agreed, the railroad owners and managers and the public alike. Many people err in supposing that the railroad companies invariably adopt that course of action which they prefer to follow. They do not make discriminations because they prefer to conduct their business in this manner, but because they think existing circumstances compel them to adopt these methods. The practice of making discriminations between particular shippers and particular localities has been one of the inevitable results of the intense competition under which the business of transportation has thus far been carried on in this country. In the struggle of rival lines to secure and hold traffic the competitors have made special rates and secretly given drawbacks. Usually, at

the New York Central and Erie Railroads certain sums of money, in no instance less than twenty cents per barrel on every barrel of crude oil carried by each of these roads. Co-operating, as we are doing, with the Standard Oil Company and the trunk lines in every effort to secure for the railroads paying rates of freight on the oil they carry, I am constrained to say that, in justice to the interest I represent, we should receive from your company at least twenty cents per barrel on each barrel of crude oil you transport. . . . I make this proposition with the full expectation that it will be acceptable to your company; but, with the understanding, on my part, that in so doing I am not asking as much of the Pennsylvania road as I have been, and am receiving of the other trunk lines."

The reply to this communication included the following sentence:

"Your favor of February 15th has been received, and directions have been given to allow you, from and after February 1, 1878, the commission therein asked for, until further notice."

This is a sample communication and shows how a business enterprise such as the Standard Oil Company, could compel the railroads to exert their great power over industry in a way that was not for the general good. The cause of the evil practices lay in the practical situation under which the railroads were compelled to conduct their business. Albert Fink claimed that the story of the extortion of rebates by the Standard Oil Company was the best possible argument in favor of legalized pooling.

[*cf. Ibid.*]

least, they have done this because they hoped by so doing to promote the development of their respective lines. This, it is true, is merely an explanation for the practice and no justification for its continuance. Industry has suffered because of these practices of the railroads, but it should not be forgotten that individual carriers have felt themselves forced to resort to these methods because the people of the United States have clung so tenaciously to the belief that unrestricted competition affords the best regulator of railway affairs. The conviction is at last growing that adherence to competition has not resulted satisfactorily and the American people, through their representatives in Congress, are trying to decide what barriers ought to be erected, to decide the limits within which the competitive struggle of rival railroads should be kept. The problem in transportation, which at the present hour the railways and the public alike are anxious to see satisfactorily and finally solved, is the problem of eliminating discriminations so completely that freight classifications and freight charges shall henceforth be so arranged and so assessed that every shipper and every locality will be justly treated at all times. The solution of this problem is not the task of an hour, and we must not expect to reach our ideal without long and persistent effort.

The work of the Interstate Commerce Commission during the past eight years has enabled us to make considerable headway in the attempt so to regulate transportation as thoroughly to eliminate discriminations, but carriers and shippers are both aware that much is yet to be accomplished. While published rates are more generally observed than they were formerly, exceptions are being made to large shippers by all the more important carriers. In its last report the Interstate Commerce Commission says: "Experience in the administration and working of the prohibitory and penal features of this statute has demonstrated the necessity for further legislation upon specific subjects, so as to render evasions of its general provisions unsuccessful. In other

words, having enacted into a law a proper and just theory or scheme of regulation, Congress should, as occasion arises, legislate with reference to methods of practical railroad operation whenever they appear to obstruct or evade the successful application of such theory or scheme." The legislation recommended by the Interstate Commerce Commission is of such vital moment to industry that it will justly claim much of the time of Congress during the next decade. In my opinion we shall have solved the money question before we succeed in securing that regulation of transportation that will secure an equal measure of justice to all shippers and carriers. The whole course of our history points to State regulation rather than to State monopolization of the transportation business.

It is an easy matter to prove that the industrial services of the railroads have been great and to show that their immense power over industry has at times been so exercised as to work injury to individuals and communities. All are agreed that such great power cannot safely be left irresponsible, but that it must be made subject to an authority higher than itself, one that seeks to advance the welfare of society as a whole. The whole transportation problem centres about the question of rates, the amount of charges and the manner of their imposition. The schedules of railway rates must be worked out by the railroads themselves; they are, in fact, the only parties capable of performing this task. At present these schedules are decided upon by a multitude of separate, and to a large extent antagonistic, corporations. Each company is obliged, first of all, to meet the conditions imposed by real and possible competition; the requirements that must be met in order to provide the public with the best possible service can claim only a secondary consideration. Railway rates are made by antagonists and not by men co-operating to secure the best possible results. Freight classifications and the rates based upon them ought first to be worked out and agreed upon by the transportation companies; the

classifications thus agreed upon by the railroads should then be submitted to the government for approval and amendment by the authority which represents the public as a whole. The charges thus accepted by the government as proper should be observed by the railroads. The experience of the last quarter of a century seems to have conclusively demonstrated the fact that rates cannot be maintained without allowing the railroads to enter into traffic agreements enforceable in the courts of law. This means the legalization of governmentally regulated pooling contracts. When we shall have dealt with the rates question in this manner we shall have put an end to discriminations, and to the injuries which they inflict upon industry.

The economic advancement of the country does not demand a general lowering of rates, but greater equality and stability of charges. The ideal which we all wish to attain in the transportation business is a rate high enough to give the railroads a fair profit upon actual investment, so levied that every shipper may know that published schedules are going to be maintained without frequent fluctuations, and so collected that every person may feel certain that for similar services rendered like charges will be made. With the attainment of this ideal the industrial services of the railroads will be at their maximum.

EMORY R. JOHNSON.